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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,110	05/23/2000	Simon Robert Walmsley	PEC03US	9118

24011 7590 07/07/2003

SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

LAMB, TWYLER MARIE

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 07/07/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,1-10

Applicant(s)

WALMSLEY, SIMON ROBERT

Examiner

Twyler M. Lamb

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/23/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 2-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook (US 5,805,178) in view of Harrington et al. (Harrington) (US 5,737,455).

With regard to claims 1, and 6-10, Silverbrook discloses a print engine/controller (Figure 4, head driver circuit) to drive an ink drop print head comprising: an interface at which to receive compressed page data (col 24, lines 12-44); decoders (decoder 405) to decode respective types of image planes in the received compressed page data (col 28, lines 5-20); and a half-toner/compositor to composite image plane data (col 33, lines 43-60).

Silverbrook differs from claim 1 in that he doesn't teach the half-toner/compositor including: a dot merger unit taking bits from the respective planes as inputs; and a color mask register holding masking bits in number equal to the number of image planes; respective input bits to the dot merger unit being ANDed with respective color mask register bits and the resultant bits Ored together to form an output bit in a channel for which there is an ink at the print head.

Art Unit: 2622

Harrington discloses an apparatus for combining antialiased edges that includes the half-toner/compositor including: a dot merger unit taking bits from the respective planes as inputs; and a color mask register holding masking bits in number equal to the number of image planes; respective input bits to the dot merger unit being ANDed with respective color mask register bits and the resultant bits Ored together to form an output bit in a channel for which there is an ink at the print head (col 7, line 25 – col 8, line 7).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Silverbrook to include the half-toner/compositor including: a dot merger unit taking bits from the respective planes as inputs; and a color mask register holding masking bits in number equal to the number of image planes; respective input bits to the dot merger unit being ANDed with respective color mask register bits and the resultant bits Ored together to form an output bit in a channel for which there is an ink at the print head as taught by Harrington. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Silverbrook by the teaching of Harrington to obtain the background pixel values as taught by Harrington in col 7, line 25 – col 8, line 7.

Allowable Subject Matter

3. Claims 2-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2622

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Twyler Lamb whose telephone number is 703 - 308-8823. The examiner can normally be reached on M-TH (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-308-4712. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-6036 for regular communications and 703-872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 872-9314

(for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two
2121 Crystal Drive
Arlington, VA.
Sixth Floor (Receptionist)

Twyler Lamb



June 29, 2003